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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,846	10/30/2003	Laurent Massoulie	304871.02	9313

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MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052-6399

EXAMINER

WALSH, JOHN B

ART UNIT	PAPER NUMBER
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2151

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/23/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/23/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/698,846

Applicant(s)

MASSOULIE ET AL.

Examiner

John B. Walsh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amdt of 1/10/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 10-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 10 recites a computer program product. However the computer program product encoding a computer program appears drawn to software, which is non-statutory subject matter. The claim lacks the computer program product in combination with an appropriate computer readable medium. See MPEP 2106.01.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 - 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 10 and 19 recite “replace the logical network link with the proposed logical network link in the overlay network with a reorganization probability”. It is unclear how the logical network link is being replaced with the proposed logical network link, since the logical network link connects the active node and the first neighboring node and the proposed logical

network link connects the first neighboring node and the second neighboring node. Also it is unclear how a link is replaced with a reorganization probability, which is not a link.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-28, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,909,700 to Benmohamed et al.

As concerns claims 1, 10 and 19, determining a first cost (figure 8, 10B-10H) associated with a logical network link between an active node (column 3, lines 39-40) and a first neighboring node of the active node within an overlay network, the active node and the first neighboring node communicating through one or more physical network links (figure 8, 802; figure 9); determining a second cost (figure 8, 10B-10H) associated with a proposed logical network link between the first neighboring node and a second neighboring node of the active node within the overlay network; and reorganizing the overlay network to replace the logical network link with the proposed logical network link in the overlay network with a reorganization probability based on the first and second costs and the size of a neighbor list of the active node, the size of a neighbor list of the first neighboring node and the size of a neighbor list of the second neighboring node (column 5, lines 12-32; figure 7, 702 –size of lists

are taken into account for nodes on network, which includes an active, first and second neighboring node; figure 8, 802).

As concerns claims 2, 11 and 20, wherein the reorganization probability is dependent upon a change in an energy function caused by replacing the logical network link with the proposed logical network link in the overlay network (column 5, lines 12-32).

As concerns claims 3, 12 and 21, wherein determining the first cost comprises: measuring a round trip delay time (column 6, line 54) between the active node and the first neighboring node of the active node within the overlay network.

As concerns claims 4, 13 and 22, wherein determining the second cost comprises: triggering a measurement of a round trip delay time (column 6, line 54) between the first and second neighboring nodes of the active node within the overlay network.

As concerns claims 5, 14 and 23, wherein determining the first cost comprises: determining an available bandwidth (column 6, lines 2-5) in the logical network link between the active node and the first neighboring node of the active node within the overlay network.

As concerns claim 6, 15 and 24 wherein determining the second cost comprises: determining available bandwidth (column 6, lines 2-5) in the proposed logical network link between the first and second neighboring nodes of the active node within the overlay network.

As concerns claims 7, 16 and 25 further comprising: randomly selecting the first neighboring node of the active node from a local address list of the active node (column 25, lines 39-45).

As concerns claims 8, 17 and 26 wherein the overlay network is an unstructured overlay network (column 26, line 48).

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As concerns claims 9, 18 and 28 further comprising: restricting a subset of neighboring nodes of the active node from reorganization (column 14, lines 36-40).

As concerns claim 27, the system of claim 19 wherein the first and second neighboring nodes of the active node are selected from a neighbor list maintained by the active node (column 13, lines 18-19; column 15, line 35; column 15, line 51).

Response to Arguments

7. Applicant's arguments filed January 10, 2007 have been fully considered but they are not persuasive.

The applicant argues Benmohamed et al. '700 do not disclose a first cost, logical network link and active node. The examiner disagrees since the claim terms are given their broadest reasonable interpretation and Benmohamed et al. '700 discloses such limitations at least at Figure 8, 802, Figure 9 and Figure 6B.

The applicant argues Benmohamed et al. '700 do not disclose nodes. The examiner disagrees since Benmohamed et al. '700 discloses such limitations at least at Figure 6B, 616.

The applicant argues Benmohamed et al. '700 disclose a monetary cost and cites col. 2, lines 26-31. Nowhere within this passage do Benmohamed et al. '700 recite that the cost is a monetary cost. Furthermore, even if one were to interpret that the cost is a "monetary" cost it would still be equivalent to the applicant's claimed "cost" since the claims do not limit the term to any particular type of "cost".

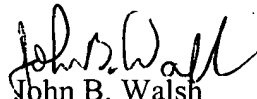
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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Thursday from 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John B. Walsh
Primary Examiner
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